

# SYSTEMS AND METHODS FOR MEDIA AUTHENTICATION

## ABSTRACT OF THE DISCLOSURE

A method and system for authenticating a digital optical medium, such as a CD-ROM, determine whether the medium is an unauthorized copy, or the original. The original media is created, or altered, so as to contain anomalous locations from which the transfer of data is accomplished at different rates than a standard digital copy would exhibit. One implementation of the process involves timing analysis of the differences in data transfer rates, and does not necessarily require the retrying of data reads, nor does the process require the media to exhibit fatal errors, as in conventional approaches. The process can be employed in systems that control access to unauthorized copies, or may be used for other informative purposes. Theft, distribution, and piracy of digital content on optical media , such as computer software (also games, video, audio, e-book content), is often accomplished by copying it directly to another disc using commonly available copy tools and recordable optical media, or the replication of media to another mass manufactured disc. The present invention, which helps to irrefutably identify a unit of optical media as the original, and can correspondingly identify any copy made by any currently available means as such a copy, may prevent an unauthorized individual from making use of any unauthorized copies. This offers significant advantages to content creators who wish to protect their products.

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